

**REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 16-31 remain active in the application subsequent to this Amendment which addresses the issues raised in the Official Action of May 8, 2007, a Final Rejection, and accompanies a Request for Continued Examination.

In the Final Rejection, claims 16-31 are rejected as failing to comply with the written description requirement, the examiner arguing that there is no support in the specification for preventing wound healing as stated in claim 16. For this reason, claim 16 has been amended to remove the preventative aspect of the claim as it previously stood.

An omission in claim 31 has been attended to thus responding to the second item on page 2 of the Final Rejection.

The balance of the Official Action, namely that claims 16-20 and 24-30 (prior to amendment) lack novelty over EP '037 or WO '022. Further, claims 16-30 are regarded as being "obvious" and therefore unpatentable over the same two documents in combination with WO '467. Separately, claim 31 is rejected as lacking patentability over U.S. '386 in combination with EP '037.

In order to address all of these rejections, the claims have been amended and directed to a method of treatment of inflammation or wound healing in aquatic animals, the preventative aspect of the previous claims being removed.

The above-described amendment renders all of the Examiner's objections moot with the exception of the one raised against claim 31 which covers the same subject matter as the main claim will once amended. Claim 31 has been amended and solely directed to treating inflammation, as discussed below. The crux of the Examiner's objection to this subject matter seems to be that US '386 discloses that beta-glucans are known generally to accelerate wound healing and that EP '037 teaches that beta-glucans can be administered to aquatic animals.

Applicant again submits that the skilled man would not be motivated to combine the teachings of these documents. US '386 is primarily concerned with use of beta-glucans in treatment of humans. This follows from the teaching at column 1, lines 9-14 where it is stated that beta-glucans can be useful in cosmetics for wrinkle treatment. As the Examiner points out, US '386 goes on to teach at column 3, lines 38-52 that beta-glucans may be administered

parenterally, e.g. by i.v., i.m. or i.p. However, lines 49-52 of column 3, specifically state that to facilitate wound healing, treatment by topical application of glucan is preferred. This requires use of a cream, lotion or gel which is applied to the skin of a human being.

A skilled man would not combine this teaching with that of EP '037 which is specifically concerned with fish because treatments, and especially topical treatments, that are applied to humans are not conventionally transferred to fish. This is because a human requiring wound healing requires treatment of their skin whereas a fish in need of wound healing requires its outer surface of scales to be repaired. These surfaces are, however, entirely different. The skin comprises a dermis, a viable epidermis and a non-viable epidermal layer called the stratum corneum. The stratum corneum is the outermost layer of skin and is a thick keratinised layer of dead cells. In contrast, aquatic animals such as fish have an exterior surface that is composed of live cells and secretory glands which produce a mucus coat which covers its surface. The surface to be treated by wound healing of an aquatic animal is therefore nothing whatsoever like that of a human therefore there is no reason whatsoever for the skilled man to expect beta-glucans applied topically to a human to be useful in treating wounds in aquatic animals.

This is particularly the case in light of the fact that EP '037 teaches a strong preference for administering beta-glucan to fish by incorporating it into feed or by injection. This follows from the fact that without exception all of the examples of EP '037 use these administration routes. This is, however, completely contradictory to the teaching in US '386 that says wounds should be treated by topical application. The skilled man reading EP '037 in light of US '386 would therefore be discouraged from applying beta-glucans to fish as it is clear from EP '037 that the administration route advised in US '386 is non-favorable in fish. This is especially the case as the skilled man would already be well aware of the above-mentioned difference between skin and fish scales.

The Examiner is also reminded that EP '037 does not concern actual treatment of a disease in aquatic animals. Rather it is concerned with prophylactic treatment, e.g. to boost the immune system and enhance the effect of vaccines. There is nothing in EP '037 which suggests that beta-glucans themselves may have a therapeutic effect. Thus, although the skilled man is taught that they can be administered to fish, he is not taught that they will provide effective treatment of wounds. Given the above-described differences between human skin and fish scales

GEACH,  
Appl. No. 10/537,047  
October 9, 2007

applicant submits that, absent this teaching, there is no motivation for the skilled man to try a method as claimed.

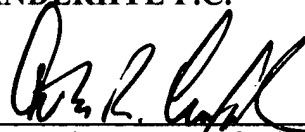
Counsel observes that none of the Examiner's objections relate to the method of treatment of inflammation as specified in claim 16. Claim 31 is amended and is solely directed to this treatment.

For the above reasons it is respectfully submitted that the claims of this application define inventive subject matter. Reconsideration and allowance are solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_

  
Arthur R. Crawford  
Reg. No. 25,327

ARC:eaw  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100